Revisions, DeltaE version 5.4 (relative to 5.3)
September 2004, GWS and WCW

System changes:

We have changed compilers, from Watcom to Absoft. The auxiliary file DOS4gw.exe is no longer needed.

We have given up trying to maintain DeltaE's ability to send information directly to a printer. Just use your favorite text editor (Word, notepad, …) to open and print the files.

Computational changes:

PX segments now work ok for porosity = 1.

The temperature-discontinuity algorithm for the JOIN segment has been changed dramatically. The temperature discontinuity is now reduced to try as well as possible to account for the two-dimensional nature of the JOIN problem within DeltaE's inherently 1-dimensional character. The earlier temperature-discontinuity joining condition neglected the thermal conductivity of the wall of the tube and the boundary-layer shuttle entropy flux. If these are zero, then the new algorithm matches the old algorithm. If these are powerful, i.e. if the solid wall of the duct or the boundary layer is effectively a thermal short circuit compared to bulk gas conductivity, then no temperature discontinuity appears in the JOIN segment. See the version 5.4 Users Guide for details in the intermediate case.

User-interface bugs fixed:

Splitting a CONE now fixes up intermediate area and perimeter.

Flipping a file top-to-bottom works a little more reliably.

The highlight list is better behaved when segments are inserted or when RPNTARG segments are involved.